

INTERNATIONAL SEARCH REPORT

Intern: I Application No
PCT/182005/050449

U 016429-4

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C10G2/00 C07C41/01 C07C41/09 C07C1/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C10G C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 092 172 A (SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ BV) 11 August 1982 (1982-08-11) page 1, line 51 - line 55 page 3, line 33 - line 38 page 6, line 2 - line 20; claims; examples 3,5-8 -----	1-18
X	GB 2 097 382 A (MOBIL OIL CORP) 3 November 1982 (1982-11-03) page 5, line 14 - page 6, line 8; claims 21-24; figure 5 -----	1-18
A	WO 02/26676 A (EXXONMOBIL CHEMICAL PATENTS INC) 4 April 2002 (2002-04-04) page 3, line 13 - line 23 page 7, line 30 - page 8, line 19 ----- -/--	1-18

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

12 July 2005

Date of mailing of the international search report

05/08/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Seufert, G

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2005/050449

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	"Ullmann's Encyclopedia of Industrial Chemistry, vol. 8" 2003, WILEY-VCH, WEINHEIM, XP002335608 page 651 - page 668 -----	1-18
A	WO 02/094426 A (CHEVRON U.S.A. INC; SASOL TECHNOLOGY LIMITED) 28 November 2002 (2002-11-28) page 10, line 30 - page 17, line 24 -----	1-18
A	US 2003/018088 A1 (RAJE AJOY P ET AL) 23 January 2003 (2003-01-23) page 4, paragraph 32 page 4, paragraph 37 - page 5, left-hand column, line 5 -----	1-18

INTERNATIONAL SEARCH REPORT

Intern Application No
PCT/IB2005/050449

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
GB 2092172	A	11-08-1982	NL	8006751 A		01-07-1982
			AU	542036 B2		31-01-1985
			AU	7840981 A		23-09-1982
			BE	891195 A2		21-05-1982
			BR	8107995 A		14-09-1982
			CA	1260019 A1		26-09-1989
			DE	3148745 A1		12-08-1982
			FR	2496094 A1		18-06-1982
			IN	155483 A1		09-02-1985
			IT	1140322 B		24-09-1986
			JP	1637233 C		31-01-1992
			JP	2062535 B		26-12-1990
			JP	57131728 A		14-08-1982
			NZ	199221 A		31-01-1985
			ZA	8108539 A		24-11-1982

GB 2097382	A	03-11-1982	SG	68685 G		02-05-1986

WO 0226676	A	04-04-2002	US	6486219 B1		26-11-2002
			AU	8534401 A		08-04-2002
			WO	0226676 A2		04-04-2002

WO 02094426	A	28-11-2002	US	2002173556 A1		21-11-2002
			AU	4237502 A		28-11-2002
			BR	0209544 A		20-04-2004
			GB	2380201 A , B		02-04-2003
			JP	2004527629 T		09-09-2004
			NL	1020632 C2		17-06-2003
			NL	1020632 A1		25-11-2002
			WO	02094426 A2		28-11-2002
			ZA	200203994 A		02-01-2003

US 2003018088	A1	23-01-2003	WO	02068368 A1		06-09-2002

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2005/050449

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14, 16 and 17, 18 as far as they refer to claim 16

Process for the preparation of hydrocarbons and dimethyl ether

2. claims: claims 15 and 17, 18 as far as they refer to claim 15

Process for the preparation of liquid fuel and light olefins
